

COMPARATIVE PSYCHOPHARMACOLOGY: PUTTING NICOTINE IN ITS PLACE

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Psychopharmacologists assume that the psychotropic properties of a substance will be directly related to the changes in behaviour and psychological function following administration of appropriate doses of the drug. However, to look at the effects of a psychoactive substance per se, without the benefit of comparative data from other psychotropics, creates problems in placing a drug in its proper position relative to other psychoactive substances. This paper reports the results of a meta-analysis of the effects of a range of psychoactive substances (including nicotine, caffeine and alcohol) on valid and reliable psychometric measures.

The results show that the overall effects of nicotine in improving all aspects of cognitive and psychomotor function are greater than those of placebo, but not as great as the effects produced by methylphenidate, amphetamine and pemoline.

Nicotine is also significantly and distinctly separated by its profile of psychopharmacological activity from substances such as morphine, codeine, minor tranquillisers and some anti-depressants and neuroleptics. Nicotine is closer in its profile of behavioural action to caffeine and some agents used as cognitive enhancers.

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